



Impact infrared sensor version incorporating all of the standard features of the popular Impact Pro portable gas detector range

Impact IR



Features:

- Unique replaceable sensor cartridge pre-calibrated for lowest cost of ownership and minimal service requirements
- Rugged water resistant IP67 construction for use in aggressive confined space environments and other demanding industrial monitoring applications
- Powerful, long lifetime, internal motorised pump for sampling over long distances using a selection of probes for all applications
- Excellent battery life using rechargeable NiMH batteries
- Advanced data logging capability as standard with up to 200 hours of continuous data storage for all channels of gas detected
- Easy to calibrate with the unique Enforcer (% LEL sensor only) un-powered calibration station that completely automates bump testing and gas calibration
- Intrinsically safe communications technology between operator and attendant using the advanced SafeLink intercommunication option between two Impact units

For more details please refer to the Impact Pro brochure.

Now including a range of advanced infrared (IR) optical sensors with models available to detect % LEL or % VOL Methane (as well as other Hydrocarbons), and CO₂ with long-term stability.

This additional sensor complements the proven electrochemical cell and catalytic bead technology within the Impact Pro range.

Technology Overview

Infrared Cells: IR sensors operate by passing infrared light through the gas sample and detecting the change in transmitted light as the molecules absorb the energy to change their vibrational and rotational status. A specific fingerprint can be assigned in the IR spectrum that represents certain gas molecules. Miniature IR sensors can now be practically incorporated into portable devices; they have the characteristic of a small footprint and relatively low battery consumption making for an ideal sensor for portable use to detect Methane (linear) and other Hydrocarbons at % LEL and % Vol applications. IR sensors can also be tuned to measure Carbon Dioxide (CO₂).





Benefits:

The enhanced Impact range with additional IR sensor capabilities can now take advantage of the following end user benefits:

- long-term stability of IR sensors
- longer sensor lifetimes for CO₂ applications using IR sensors
- % LEL and % VOL flammable sensors linear to Methane, but able to detect other Hydrocarbons
- backed by the Honeywell Analytics 24 hr / 7 day service cover
- cost effective platform for many applications
- solid state poison resistant sensor technology

Applications:

With this enhanced combination of sensors and detectable gases, the Impact portable range is ideal for the following end user applications:

- confined space entry and pre-entry safety checks
- petrochemical processes
- waste water treatment
- food, brewery and wine production
- fire suppressant leak detection
- oil and gas exploration and refining
- chemical and gas storage/transportation
- shipping and marine logistics
- industrial hygiene and landfill monitoring
- refrigeration
- power generation

Detectable Gases:

Gas Name	Gas Formula	Sensor Technology		
		Catalytic Bead	IR Cell	Electrochemical Cell
Flammable	% LEL, % Vol	X	X	
Oxygen	O ₂			X
Carbon Monoxide	CO			X
Carbon Dioxide	CO ₂		X	X
Hydrogen Sulphide	H ₂ S			X
Ammonia	NH ₃			X
Sulphur Dioxide	SO ₂			X
Nitrogen Dioxide	NO ₂			X
Chlorine	Cl ₂			X

Note: The Impact Pro sensor cartridges that include an IR sensor are serviceable.

All the IR sensor options occupy the same cell position as the catalytic bead so only either one IR or the catalytic sensor can be installed within any single cartridge.

Additional notes:

- Hydrogen (H₂) cannot be detected using the IR principle.
- No alarms are provided for the 0-100% / Volume IR sensor.